Public Investment

FOR ECONOMIC RENEWAL

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Introduction

Ontario is experiencing the lingering effects of the worst economic downturn since the 1930s. At the same time, the rapid restructuring of the economy is changing the way companies do business and the kinds of jobs available to Ontario workers. The combination of structural change and a cyclical downturn has resulted in poor economic performance, high unemployment and extraordinarily difficult fiscal pressures on the Province. Recovery is now under way, but restructuring will continue.

To help meet these challenges, the Government of Ontario has embarked on a comprehensive program of economic renewal. The goals of the economic renewal program are to create more and better jobs, stimulate investment, move to higher value-added activities throughout the economy, maintain important public services and manage the fiscal situation responsibly.

Public capital investment will play a key part in the economic renewal program. Public investment in physical infrastructure – roads and highways, transit, energy generation and transmission systems, water and sewer systems, educational and medical facilities – has helped shape Ontario's economic development in the past and will help shape it in the future. Efficient infrastructure systems of international calibre provide the basic fabric underlying a modern, sophisticated economy like Ontario's. As well, public infrastructure investments can provide a powerful lever to attract private capital investment and new jobs.

The purpose of this paper is to set out new directions in Ontario's capital investment policy. The main objective of the new approach to capital policy is to improve the overall performance of our infrastructure systems. The policy will help to:

- build the infrastructure the economy needs;
- use the infrastructure we already have more efficiently;
- maintain and upgrade existing infrastructure, without waiting too long and without over-investing;
- pay for infrastructure investments; and
- better match the distribution of costs and benefits.

Changes are needed to meet these objectives.

First, the Province will make strategic investments — high impact investments that are catalysts for change. Strategic investments are needed to ensure that scarce capital dollars are used as effectively as possible for the long-term good of the province. They will also connect Ontario's capital investments to other major Provincial economic policies.[1]

The focus of these strategic investments will be economic renewal. The Province will invest in a range of areas to create new opportunities for

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1 For example, see: *1991 Ontario Budget*, Budget Paper E, "Ontario in the 1990s: Creating Equitable Structural Change"; *1992 Ontario Budget*, Supplementary Paper, *Investing in Tomorrow's Jobs: Effective Investment and Economic Renewal*; and *An Industrial Policy Framework for Ontario*, July, 1992.

economic development, improve the competitive position of existing industries, and increase the efficiency of infrastructure systems.

The strategic investments will include transportation and environmental infrastructure needed to improve Ontario's productivity, attractiveness as an investment location, and quality of life. They will also include infrastructure that fosters innovation such as telecommunications systems and knowledge-creating educational and research institutions. And they will include investments that help develop more stable economies in communities throughout the province.

Second, the Government will continue to improve capital planning, financing, and management. Institutional changes are needed to make the system work better. New approaches to financing are needed to pay for capital assets over their useful life.

Special-purpose Crown corporations will be established in key areas that are important to economic renewal — transportation, water and sewer, and government real estate investments. These new institutions will be able to develop and manage infrastructure more efficiently. They will also provide opportunities for more effective partnerships and for new financing and pricing arrangements. As a result, more of the infrastructure needed for economic renewal will be built than would be possible if the Government proceeded on its own.

Third, the Government is committed to improved accountability. This will involve better coordination and priority-setting within government, and working more effectively with other funders and providers of infrastructure. It will also involve fuller reporting of capital investment in the Budget.

These new directions for capital policy will clearly link public capital investment to economic renewal goals and lead to future investment and job creation.

Changing Needs and Priorities

Infrastructure consists of the public facilities and systems that enable the economy to function efficiently. It includes networks of connected facilities and systems, such as highways, transit, energy generation and transmission, telecommunications and water and sewer systems. It also includes the institutional facilities through which a broad range of public services are delivered — everything from education, medical and judicial services to science and technology facilities.

A Partial Inventory Of Ontario's Infrastructure Systems **Table 1**

Type of Infrastructure	
Go Transit	more than 200 buses and 331 bi-level train cars
Subway Cars	622
Subway Stations	65
Municipal Transit	4,796 buses, streetcars and trolleys
Municipal Roads	135,600 km of roads and 8,824 bridges
Provincial Roads	21,457 km of highways and 2,992 bridges
Water and Sewer	500 water and 418 sewage treatment plants
Railway Lines	12,500 km
Ports	48
Airports	107 publicly-owned airports, 10 of national or international significance
Telecommunications	almost 6 million access lines
Electricity	647,500 square km serviced area and 28,117 km of transmission lines
Gas	54,358 km natural gas pipelines
Elementary and High Schools	5,546
Colleges and Related Institutions	32
Universities	17
Public Hospitals and Treatment Centres	238
Courts	400
Public Television	2 English & 2 French networks (CBC, TVO)
Government of Ontario Analytical Labs	50
Ontario Centres of Excellence	7
Federal Centres of Excellence	4 centred in Ontario
Provincial Research Organization	ORTECH International
R&D Communications Networks	ONET (Provincial), Ca-Net (national)

Ontario has a well-developed infrastructure system. It is part of a national infrastructure system that is recognized as among the best in the world. The 1992 World Competitiveness Report ranked Canada's infrastructure third in the world.[2] Ontario's role in helping to build the nation's infrastructure has been critical.

Over the past three decades, infrastructure investment in Ontario has changed to accommodate shifts in the structure of the Ontario economy and to meet the priorities of the day. Just as infrastructure investments in earlier decades reflected the priorities of their times, infrastructure investment will need to change to accommodate the realities of the 1990s – global competition, changing infrastructure technology, regional growth pressures, concern for the environment, and an aging capital stock.

Infrastructure and Structural Change

The Ontario economy, like advanced economies around the world, is undergoing structural change. Structural change refers to shifts in the mix of goods and services that the economy produces – the changing shares of output or employment accounted for by different industries – and the way they are produced. A recent OECD report examining structural change in seven countries found that Canada and the United Kingdom had experienced the greatest structural change.[3]

Structural change has three implications for infrastructure investment.

An important aspect of structural change is that the economy has become more interconnected. The lines between sectors have become blurred. The importance of investments in economic infrastructure that connect different sectors, such as transportation and communication infrastructure, will therefore increase as the economy continues to become more integrated.

Second, as the economy restructures, more complex and sophisticated infrastructure systems will be needed. Global economic integration has led to increased demand for efficient information exchange in business operations such as research and development, communications between suppliers and customers, and links between corporate divisions in different parts of the world. The effect of restructuring and global integration will be to increase the demand for new kinds of infrastructure such as advanced telecommunications. At the same time, the need for investment in more traditional infrastructure such as transportation, water and sewer systems will continue to rise.

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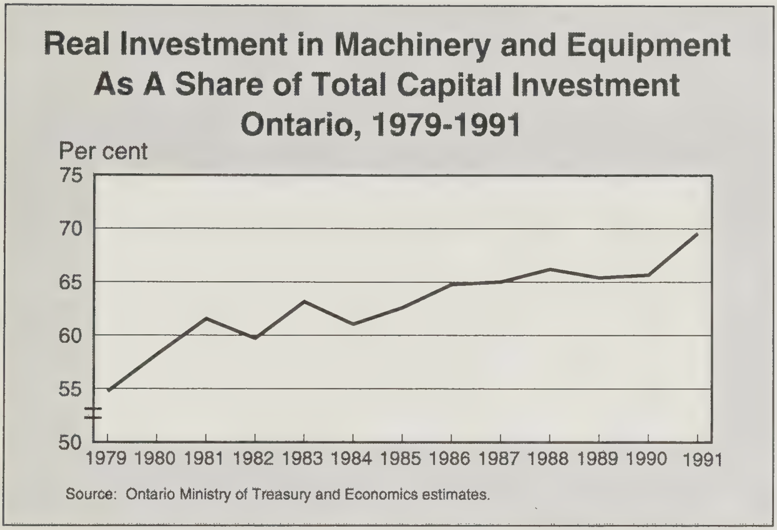
2 The World Economic Forum, *The World Competitiveness Report, 1992*, Zurich. The Report defines infrastructure to include natural resources, information, communication and transportation systems. It evaluates the availability and efficient use of natural resources together with the adequacy and flexibility of infrastructure in supporting business needs. In 1992, Norway ranked first in infrastructure followed by the United States.

3 OECD, *Structural Change and Industrial Performance: Growth Decomposition in Seven OECD Countries*, Paris, 1992. The study period was 1981-86 for Canada and 1968-84 for the United Kingdom.



Third, the knowledge and technological intensity of the economy is rising. Firms in virtually all sectors are increasing their investment in machinery and equipment as a share of their total capital investment. The trend towards rising technological intensity of capital will affect investment in infrastructure as well. Environmental control systems and "smart highways"[4] are examples of new technologies that are becoming increasingly important for managing demand and improving the efficiency of traditional infrastructure systems.

Creating Competitive Advantage

The quality of a jurisdiction's infrastructure is becoming an increasingly important source of competitive advantage in advanced economies. Shifts in the structure of the economy, coupled with technological change and trade liberalization, are changing the way companies compete and what it takes for them to be competitive. To succeed internationally, many Ontario companies are now competing in more sophisticated market segments, a strategy which requires a well-developed infrastructure system, a highly skilled workforce and a commitment to innovation.

4 The concept of "smart highways" refers to a variety of advanced computer-based technologies that can be employed to achieve improvements in road and highway transportation. These technologies, also known as intelligent vehicle and highway systems (IVHS), have the potential for increasing the efficiency of road and highway transportation by reducing delays due to congestion.

Because governments play an important role in the provision of infrastructure, public capital investment decisions can influence the direction of economic growth. Most economists agree that there is a positive connection between improvements in physical infrastructure and economic growth[5], but the exact nature of the link between public capital formation and productivity growth is less clear.[6] A recent study by the Congressional Budget Office in the United States reports that most empirical studies show that public infrastructure investments can improve the performance of the private sector, although the returns to public investment vary by type of infrastructure, and between new construction and maintenance of existing facilities.[7]

Investment in physical infrastructure can influence productivity growth by improving firms' cost structures, thereby increasing the return to private capital. Infrastructure investments can also influence productivity by enabling firms to adopt state-of-the-art technological or organizational practices, such as just-in-time production systems.

Investment in infrastructure has taken on added significance in light of current and future trade agreements that limit the use of economic development incentives. Infrastructure investment allows governments to support competitiveness while minimizing the potential for trade actions against companies:

> There is a growing connection between the amount and kind of investments that the public sector undertakes and the capacity of the nation to attract worldwide capital...The skills of a nation's workforce and the quality of its infrastructure are what make it unique, and uniquely attractive, in the world economy.[8]

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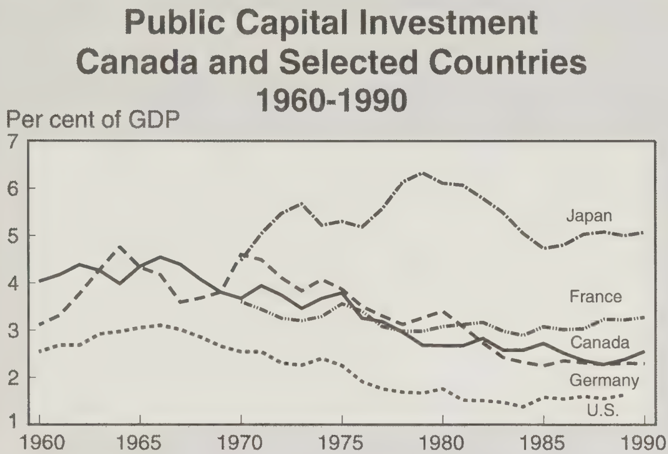
5 In 1989, 327 U.S. economists, including six Nobel Prize winners, warned the Joint Economic Committee that U.S. living standards could not be maintained without an expansion of public capital. (Heilbroner, Robert, "Lifting the Silent Depression", *The New York Review of Books*, October 24, 1991, p.8).

6 Although there is general agreement that public capital investment has a positive impact on economic growth and living standards, there are differing views among economists about the role played by public capital investment in explaining the slowdown in productivity growth experienced in North America over the last two decades. One view is that the reduction in public capital investment is a major cause of declining productivity and that the rate of return to public infrastructure investment exceeds that of private investment (see Aschauer, David A., "Government Spending and the Falling Rate of Profit", *Economic Perspective*, Federal Reserve Bank of Chicago, May/June 1988; "Public Investment and Productivity Growth in the Group of Seven, *Economic Perspective*, Federal Reserve Bank of Chicago, September/October, 1989; and, "Public Investment and Private Sector Growth", Economic Policy Institute, Washington, D.C., 1990). Other studies present contrary views (for example, see Holtz-Eakin, Douglas, "Public-Sector Capital and the Productivity Puzzle", NBER Working Paper #4122, July, 1992).

7 Congress of the United States Congressional Budget Office, "How Federal Spending for Infrastructure and Other Public Investments Affects the Economy", July, 1991, p. 41.

8 Reich, Robert B., *The Work of Nations*, Vintage Books, 1992, p. 264.



Source: OECD National Accounts.

As the sources of competitive advantage shift to innovation and the quality of the work force, infrastructure investments that improve social equity and the skill levels of workers will become more important. Public capital investment in schools, affordable child care, safe drinking water, a healthy environment and diverse cultural amenities provide immediate benefits and increase Ontario's attractiveness to companies that value quality of life considerations.

Public investment in infrastructure as a share of total output has been declining for several decades in most OECD countries. Governments in these countries are now focusing on investment in infrastructure as a key economic priority:

- The new U.S. administration has promised to spend $80 billion over four years re-building the country's roads, creating high-speed rail networks linking America's major cities, and developing new technologies to expand the capacity of existing infrastructure.
- The European Community is modernizing its air, rail, road and shipping systems to meet the anticipated increase in business demand from European economic integration.
- Japan's *Basic Plan For Public Investment* calls for a major expansion of urban infrastructure development to help shift the economy from export-driven to domestic-driven growth.
- Japan recently announced a national fibre optics plan to provide homes and businesses with complete multimedia services by 2015.

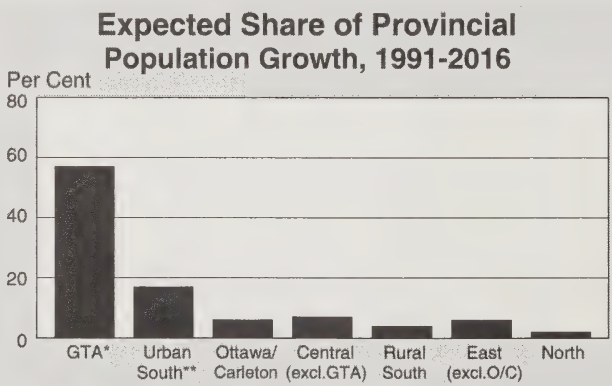
Continued investment in infrastructure will be necessary to maintain and build on Ontario's competitive position.

Infrastructure Is Needed to Deal with Regional Growth Pressures

Ontario's population is expected to increase by over 3 million during the next 25 years, roughly the same amount it grew during the last 25 years. Over half of this projected growth is expected to occur in the Greater Toronto Area.

The population of the GTA is expected to reach about 6 million by 2016. The GTA is already experiencing bottlenecks in transportation as a result of growth and the failure to invest adequately. The resulting congestion has led to real increases in the cost of moving people and goods. For example, it has been estimated that 30 per cent of total commercial vehicle costs in the GTA are congestion costs[9]. Growth in some other urban communities throughout the province has created similar pressures. Other regions will also require investment to maintain existing infrastructure and to accommodate population growth.

To meet the demand for infrastructure, new financing mechanisms will need to be found and existing infrastructure systems will need to be used more efficiently.



*Includes Metro Toronto, Durham, Halton, Peel and York.
**Includes Middlesex, Hamilton-Wentworth, Essex, Niagara and Waterloo.
Source: Ontario Ministry of Treasury and Economics.

9 Metropolitan Toronto Roads and Traffic Department, "Metro Toronto Goods Movement Study," December 1987.

Environmental Concerns Require Greater Efficiency

Awareness and concern about the environment are growing, along with a recognition of the important link between environmental sustainability and long-term economic growth. Many companies are adopting environmentally-friendly production methods and governments around the world are strengthening environmental standards and regulations.

As environmental impact is factored into investment decisions, infrastructure systems will need to become more innovative and meet increasingly higher standards of performance.

Environmental sustainability is aided by investments in new kinds of infrastructure, such as telecommunications. They can help move the economy to more knowledge-intensive methods of production, which require fewer resources and cause less damage to the environment. New technologies can also be used to reduce demands on existing infrastructure systems. For example, telecommuting (working from home through an electronic link to the office) may reduce the need to expand transportation systems.

Investments in public transit provide people with an affordable alternative to automobile travel. By reducing the number of automobile trips, public transit can help to reduce emissions and improve air quality. Over 80 per cent of Ontario's population is serviced by public transit.

Public infrastructure projects such as roads, electricity generation, and water and sewer systems have major environmental impacts. Making the most efficient use of existing and future infrastructure systems through conservation and appropriate pricing policies can help minimize negative impacts on the environment.

THE GREEN COMMUNITIES INITIATIVE

The Green Communities Initiative, announced in 1992, provides households with "one-stop" check-ups and advice on achieving higher water and energy efficiency and better waste practices. The check-ups are used to help develop retrofit plans and, if desired, referrals are made to trained contractors. Financing for retrofits is available from a private financial institution, with repayment spread over the payback period, possibly through the householder's utility bill. The program involves the participation of municipalities, utilities, the private sector, and labour and community groups.

The Green Communities Initiative has a number of benefits for capital investment:

- It has the potential to avoid or defer the construction of additional infrastructure by using existing facilities more efficiently.
- It involves a closer working relationship with some of the Province's transfer partners and new financing arrangements with the private sector.
- It has spin-off benefits for Ontario industry.

Source: Ministry of Energy

Maintaining and Replacing Aging Infrastructure

The need to maintain and replace existing infrastructure will increase as Ontario's stock of capital grows and ages.

Much of the province's infrastructure was put in place in the 1950s and 1960s. Many parts of it have either reached or are approaching a stage where major repair or rebuilding is required.

The Ministry of Transportation's analysis indicates that the proportion of the province's highway network with poor or substandard pavement condition increased from just under 40 per cent in 1981 to over 60 per cent in 1991. In addition, about a quarter of the system's 3,000 bridges required repair and upgrading in 1991. A survey by the Ministry of the Environment in 1985 indicated that a quarter of the province's watermain and sewer pipes were over 50 years old, the average limit of their useful operating life. Many of them are now suffering high rates of breakage. About a third of the province's pipes are between 25 and 50 years old, which will lead to increasing requirements for rehabilitation in the future.

Besides aging, other factors are also contributing to the need for upgrading and replacement of existing infrastructure systems:

- Infrastructure must meet rising safety and environmental standards.
- Improved application of operational technology and management practices has allowed more intensive use of existing systems, which shortens the time to replacement. For example, traffic management technologies allow more efficient but more intensive use of highways.
- Increased global economic integration and competition are leading to demands for much higher performance from the existing infrastructure. For example, the adoption of just-in-time production systems has called for new levels of performance from transportation and telecommunication systems.
- Technology has also shortened the average economic life of some kinds of infrastructure. For example, technological breakthroughs are changing telecommunication services, leading to demands for higher capacity infrastructure networks.

Ontario's Investment Record

Governments have traditionally played a central role in the provision of infrastructure to ensure an adequate level of investment, to avoid inefficient duplication, and to provide equitable service and access at fair and reasonable prices. For some services, such as natural gas distribution and telecommunications, private firms supply infrastructure under public regulation.

In 1991, infrastructure investment in Ontario by governments at all levels and by utilities totalled about $20.5 billion.[10]

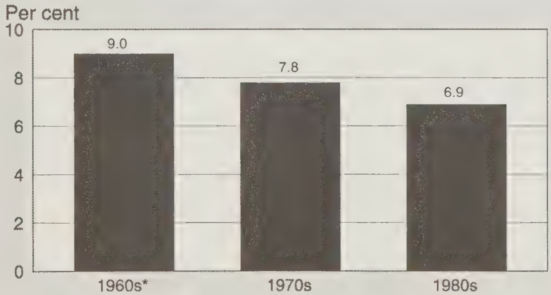
The utilities – largely regulated private sector companies and Crown corporations that deliver electricity, natural gas and telecommunications services – are by far the largest providers of infrastructure in Ontario. In 1991, they accounted for over half of the investment in infrastructure.

The federal government plays an important role in the provision and regulation of infrastructure, largely in areas that provide inter-provincial or national benefits. These include airports, harbour facilities, navigable waterways and canals, rail, international and inter-provincial bridges, and the Trans-Canada Highway.

Municipal governments are also key infrastructure providers in Ontario. In 1991, they accounted for approximately 16 per cent of investment in infrastructure, some of which was financed by transfers from senior levels of government.

Over the past three decades, infrastructure investment in Ontario has been growing more slowly than the economy as a whole. This downward trend mirrors the record of other advanced economies.

Investment in Infrastructure As a Per Cent of GDP, Ontario



*Data cover the period 1963-1969.
Sources: Statistics Canada and Ministry of Treasury and Economics.

10 Includes both capital and repair expenditures. The capital portion was approximately $16 billion.

Federal Restraints Hurt Infrastructure Investment

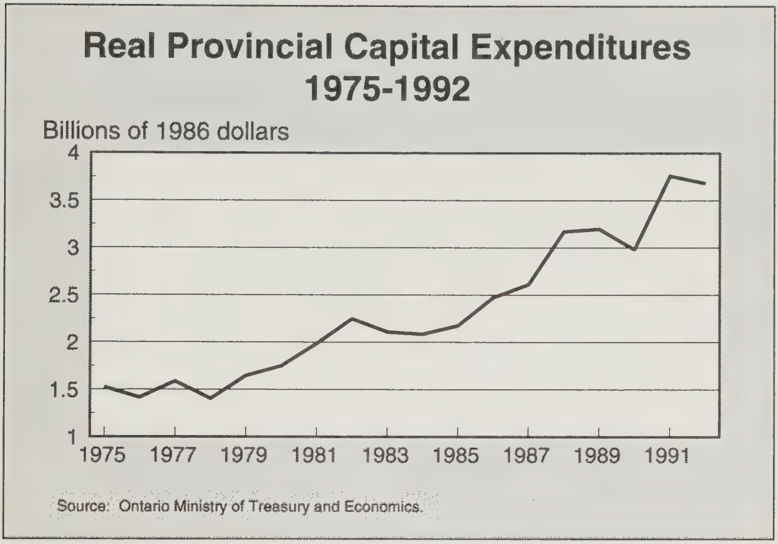
Ontario's ability to finance infrastructure investment has been hampered by substantial revenue losses due to federal limits on payments for health, post-secondary education and social assistance. As reported in Ontario's recent Fiscal Outlook, from 1988-89 to 1991-92, Ontario received about $8 billion less than it would have received if the federal government had honoured the original terms of its legislation covering these programs. For 1992-93 and 1993-94, the loss is projected to be $8.9 billion. With a smaller pie to distribute, all areas of Provincial spending have suffered, including capital investment.

Ontario has urged the federal government to increase its investment in infrastructure in the province to help create jobs and renew the economy. In January 1992, Premier Rae invited the federal government to cost-share infrastructure investments in Ontario with the Province on a dollar-for-dollar basis. In a paper released at the First Ministers' Conference in February, 1992, Ontario called for federal cooperation on a national infrastructure program to encourage strategic public and private investments essential for boosting Canada's global competitiveness. At the December, 1992 Finance Ministers' Conference, Ontario again invited the federal government to match the $500 million in infrastructure investments Ontario has announced under **jobsOntario***Capital* for fiscal 1992-93.

In its December 1992 **Economic and Fiscal Statement**, the federal government announced a series of infrastructure initiatives totalling about $1.3 billion in federal funding over the next five years. The federal government's infrastructure program falls far short of the broader infrastructure initiative suggested by Ontario. Moreover, Ontario's share of the federal infrastructure initiative is disproportionately low. Ontario is expected to receive only 20 per cent of the funding even though Ontario accounts for 37 per cent of the Canadian population, it is responsible for 40 per cent of Canadian output and Ontario taxpayers provide 43 per cent of federal revenues.

The Ontario Government's Capital Investments

Despite financial pressures, the Ontario Government has substantially increased its capital investment in recognition of the importance of infrastructure. The Province invested a total of $7.6 billion in capital in the last two years. In real terms, this represents an increase of more than 20 per cent over the previous two years.



The Province's capital investment includes both physical infrastructure and other capital assets such as government buildings, social housing and support for business.

Nearly 60 per cent of the Province's capital investment was in network infrastructure such as roads, transit and water and sewer systems that are essential to the efficient functioning of the economy. Investments in institutional infrastructure such as schools, colleges, universities, day-care centres and health care facilities accounted for slightly more than 20 per cent of Provincial capital investment. Public capital investments in other areas—such as tourism, mineral development and social housing—contribute to regional economic development and ensure that economic benefits are shared by all parts of the province.

Ontario Government Capital Investments, 1991-92 Fiscal Year ($ Millions)		Table 2
	Capital Transfers[1]	Total Capital
Transportation Infrastructure		
Highways and Roads	813	1,674
Provincial & Municipal Transit	287	288
Other	21	26
Environmental Infrastructure		
Water & Sewers, Conservation	274	274
Education Infrastructure		
Schools, Colleges, Universities	569	570
Health & Social Infrastructure		
Hospitals	134	134
Social Services[2]	140	144
Regional, Resource & Business Development		
Community[3], Regional, Resource	291	434
Other[4]		
Justice, Culture, General Government	39	330
Total	**2,568**	**3,874**

1 Transfers to municipalities, school boards, hospitals and other local institutions.
2 Includes facilities for children, seniors and persons with disabilities.
3 Includes public housing.
4 About $250 million was related to Government realty services.
Source: Ontario Public Accounts, published and unpublished.

A Key Role for Municipalities and Other Partners

Apart from provincial roads, the Government's realty program and some resource projects, Provincial capital investment consists primarily of transfers. In 1991-92, approximately $2.5 billion (or two-thirds) of the Province's capital investment was transferred to municipal governments, school boards and other local institutions for schools, hospitals, municipal roads, transit, waste management, and water and sewers.

Municipalities and other transfer partners make large capital investments, which include cost-shared projects, but also include independently funded projects. The amount contributed by these partners normally depends on the applicable grant formula. The formulae vary considerably and take into account considerations such as the nature of the project and the size and financial capacity of municipalities and institutions.

Municipalities and local organizations will continue to play a major role in tackling the infrastructure challenges facing the province and ensuring that local needs and aspirations are taken into account in setting capital investment priorities. The Province will continue to work with its partners to meet these challenges.

jobsOntario

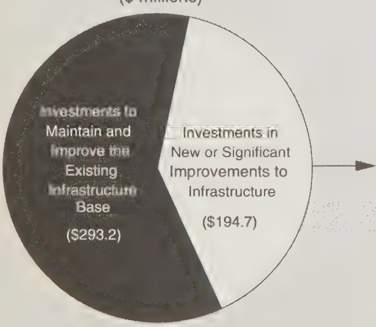
In its last two budgets, the Province set aside a portion of its capital investment to create jobs and stimulate economic activity. The $700 million Anti-Recession Program, announced in December 1990, generated approximately 17,000 person years of employment. The 1992 Ontario Budget introduced three major initiatives to support training, housing and infrastructure - **jobsOntario***Training*, **jobsOntario***Homes*, and **jobsOntario***Capital*.

jobsOntario*Training* is a three-year, $1.1 billion program to provide jobs and training for Ontario's long-term unemployed.

jobsOntario*Homes* will provide an additional 20,000 units of non-profit and cooperative housing. This investment is expected to generate $2.1 billion in capital activity over the next four years.

jobsOntario*Capital* - Taking Action

jobsOntario *Capital* **Investments, 1992-93**
($ millions)



- Knowledge Infrastructure - (49.1)
- Community Development - (32.7)
- Major New Roads - (31.8)
- Social Services & Child Care - (28.5)
- Water, Waste & Air Management - (25.9)
- Housing - (14.0)
- Energy Conservation - (5.3)
- New Technologies - (4.0)
- Disabled Access - (3.4)

Allocations of Ontario Finances, 1992-93 Third Quarter.

jobsOntario*Capital* is a five-year, $2.3 billion initiative to support economic restructuring, promote community development, encourage social progress and preserve the environment. Initial expenditures under the program focus on accelerating rehabilitation and repair projects, and on immediate investments in public infrastructure that foster economic and social development.

In the nine months since its announcement, **jobsOntario***Capital* has allocated almost $500 million towards projects now under way across Ontario. Investments made through **jobsOntario***Capital* for the current fiscal year are expected to generate up to 9,800 person years of employment.

jobsOntario*Capital* signalled a new approach to the way the Government plans and allocates its capital investments. Further changes will be made to focus on strategic investments and institutional changes for better planning and management.

New Directions

Growing and changing demand for infrastructure, increasing pressure on existing infrastructure systems, and difficult fiscal constraints have reduced the effectiveness of traditional methods of planning, financing and managing public infrastructure. New approaches are needed.

During the coming months, the Government will move ahead with three new elements of capital policy: making strategic investments for economic renewal; reforming capital planning, financing and management; and, improving accountability.

Making Strategic Investments for Economic Renewal

The Government is seeking to make its capital investments as *strategic* as possible. Strategic capital investments are high-impact investments that act as catalysts for change. They do this by changing the fundamental characteristics or performance of infrastructure systems for the purpose of achieving important public policy goals.

The Government's goal for strategic capital investment is to promote economic renewal. Economic renewal investments have long-term positive impacts on productivity. For the most part, they involve capital investments that help restructure the economy towards higher value-added activities and help make the private sector more productive and efficient. Strategic investments can help anticipate changes in the economy, help develop new ways of doing things and open up new economic and social opportunities.

The Government will continue to make strategic investments in five major areas that are important for economic renewal: transportation, environmental infrastructure, community development, telecommunications and knowledge-creating facilities.

The combination of economic growth and under-investment in transportation infrastructure in the Greater Toronto Area has led to congestion, productivity losses and environmental degradation. Strategic investments in transit and highways will address this situation and help renew economic expansion in the GTA. Other strategic investments in transportation will involve major highway projects in key economic corridors throughout the province.

The Province will also need to expand its investment in environmental infrastructure. In the 1990s, the quality of environmental infrastructure will not only directly influence the quality of life in Ontario through cleaner living conditions; it will also influence our ability to attract business investment. The availability of good quality water and adequate sewage capacity have already emerged as important constraints on the ability of some U.S. municipalities to attract and retain manufacturing investment. Investment in water and sewer facilities will help meet both environmental and economic renewal priorities.

CHARACTERISTICS OF STRATEGIC INVESTMENTS FOR ECONOMIC RENEWAL

Strategic investments in infrastructure for economic renewal typically meet one or more of the following objectives:

- Create new opportunities for economic development:
  - lever substantial additional private and public sector investment
  - support known new private sector investments
  - overcome environmental problems that hamper responsible economic development
  - promote the creation of economically important knowledge
  - assist industrial restructuring and labour adjustment.

- Improve the competitive position of existing industries:
  - upgrade under-performing infrastructure that impairs the productivity of existing companies
  - link regional economies within Ontario
  - link Ontario companies with major markets
  - encourage the development of indigenous industries related to infrastructure.

- Increase the efficiency of infrastructure systems and other economic systems:
  - increase the efficiency of other components of an infrastructure system (overcome bottlenecks, improve links)
  - improve the efficiency of land-use patterns, especially investments that support more intensive commercial and industrial development (e.g., major transit projects).

Many communities in Ontario have been hard hit by the recession, especially those heavily dependent on manufacturing employment. The Province is implementing a major Government Relocation Program that will decentralize government operations and employment. The program entails substantial capital investment. It will help stabilize and diversify the employment base of communities, give a much-needed boost to the construction industry, and make government more accessible.

In years ahead, more emphasis will need to be placed on investment in telecommunications infrastructure. Although the primary responsibility for investment lies with telecommunications utilities and primary regulatory responsibility lies with the Canadian Radio-Television and Telecommunications Commission, the Province can make a significant contribution. The report of Ontario's Telecommunications Advisory Committee provided useful recommendations about the actions the Province could take to support development of a high-calibre information network in Ontario.

Ontario's Industrial Policy Framework[11] emphasizes the importance of investing in people and infrastructure. The Government intends to place particular emphasis on specialized training and R&D facilities dedicated to the needs of industrial sectors and on science and technology facilities. The Province has already committed $216 million to renew the Centres of Excellence for a second five-year term. Approximately eight per cent of this will be invested in machinery and equipment. The Centres foster links between universities and industry and conduct research in technologies that will provide the basis for productivity gains in the future. In the last Budget, the $150 million Sector Partnership Fund was announced. One of the Fund's objectives is to support specialized industrial infrastructure. **jobsOntario***Capital* is providing additional support for knowledge-creating facilities such as special purpose university buildings that are directly related to the Government's economic renewal priorities.

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11 *An Industrial Policy Framework for Ontario*, Government of Ontario, July, 1992.

Reforming Capital Planning, Financing and Management

The effective planning and management of capital will require changes in the way government operates. Progress has already been made.

The new Treasury Board is moving to multi-year budgeting, to foster the longer-term perspective appropriate for capital investments.

The Government is also reforming its regular capital planning and allocation process – the "estimates" process for capital. This will include a new emphasis on establishing and coordinating strategic capital priorities with ministries and transfer partners. Setting priorities before organizations formulate their capital requests will provide consistency across government and help ensure that ministry goals mesh with corporate government objectives. The new system will place particular emphasis on ensuring that capital investment will more effectively support strategic investments for economic renewal and other key priorities.

When **jobsOntario***Capital* was introduced, the Government established a new decision-making process designed to raise the priority for proposed **jobsOntario***Capital* projects and assess them against Government priorities.

A facilitator appointed by the Province is working with its transfer partners — including municipalities, universities, school boards and hospitals — to help implement strategic priorities. The facilitator has a mandate to: emphasize key projects that facilitate other developments; streamline and coordinate approval processes; expedite projects with job creation potential; and, improve the efficiency of infrastructure to benefit the environment.

These changes are important first steps, but more must be done. Further institutional changes are needed to increase investment in infrastructure, plan infrastructure projects more effectively, improve the efficiency of infrastructure use, and yield a fairer distribution of the costs and benefits of infrastructure. These institutional changes will need to accommodate a shift to a loan-based financing system consistent with the long-term nature of capital investment, facilitate new financing arrangements with public and private sector partners, and open up new sources of financing.

The Government will establish three new special-purpose Crown corporations with a mandate to plan, finance and manage key infrastructure investments: the *Transportation Capital Corporation*, the *Ontario Clean Water Agency* and the *Ontario Realty Corporation*. Each corporation will have a mandate and operating responsibilities that reflect the characteristics of the type of infrastructure for which it is responsible.

The Crown corporations offer a number of advantages:

- a focused mandate, allowing for increased priority to strategic capital investments and clear accountability;
- a streamlined and more flexible organization, creating the potential for more responsive decision-making and more effective management structures;

- the ability to forge new partnerships with businesses, communities and other stakeholders in the economy;
- a mandate to explore potential revenue sources, such as beneficiary pay and user pay and to engage in appropriate commercial operations; and,
- the capacity to obtain financing, either independently or in conjunction with the government, for specific projects and to tie this financing to specific revenue streams.

NEW CROWN CORPORATIONS

The **Transportation Capital Corporation** will implement key public transit and highway construction initiatives throughout the province. It:
- will expense capital over the useful life of projects, resulting in more rapid delivery of projects
- will use new revenue sources to pay for transportation infrastructure
- will form partnerships with the private sector.

The **Ontario Clean Water Agency** will support the construction and management of water and sewer infrastructure. It:
- will provide financial assistance to municipalities
- will construct facilities on behalf of municipalities and the Province
- will operate Provincially-owned facilities
- will enable municipalities to borrow at more favourable rates
- will assist in the planning of water and sewage services and the promotion of conservation.

The **Ontario Realty Corporation** will hold, dispose of, develop, manage and finance Provincial land and buildings. It:
- will manage government's real estate capital development, including the Ontario Government Relocation Project
- will operate the government's portfolio of buildings more efficiently
- will dispose of surplus real estate.

The Crown corporations will result in more investment in infrastructure. The flexibility to enter into cost-sharing partnerships with the private sector and other potential infrastructure funders will enable the corporations to undertake more total investment than would be possible if they were relying solely on the government for funding. The development of the corporations' own revenue sources through mechanisms such as user pay will have the same effect.

The Crown corporations will be able to deliver infrastructure more efficiently. They will be able to take a more business-like approach to the planning and financing of infrastructure than government ministries. Better financing arrangements will enable major capital projects to be completed more quickly than is presently the case.

The Crown corporations will also ensure that infrastructure is used more efficiently. This will reduce the need for new infrastructure, so that more money is available for other priorities. The key to efficient use of infrastructure is appropriate pricing. Beneficiary pay and user pay will be introduced in situations where they are practical and warranted.

Beneficiary pay means the application of revenue-capturing mechanisms to ensure that individuals, businesses or areas that benefit from growth-related infrastructure investments, but which do not normally contribute directly to their cost, provide a more equitable share of funding. For example, the Crown corporations will provide greater scope for public-private partnerships, including direct private sector contributions to the financing of infrastructure.

User pay means charging users of infrastructure a price that covers all or part of the cost of providing the service. User pay is more appropriate for certain types of infrastructure — water systems, for example — where the consumption of services can be easily measured.

User pay and beneficiary pay mechanisms provide relatively predictable revenue and therefore make it easier to secure up-front project financing in financial markets. User pay also places a heavier and fairer share of the burden for financing particular kinds of infrastructure on those who use it the most. At the same time, an appropriate balance must be struck between efficiency gains and the need to ensure equitable access to public infrastructure.

The Crown corporations will manage capital assets differently. Because they will pay and account for their capital assets over the useful life of the asset, rather than expensing them over the construction phase, they will take a longer-term perspective on capital investment. This should increase their ability to plan and manage strategic capital investments. The corporations also will have a strong incentive to preserve their existing assets, which will mean that they will vigorously seek the optimal level of investment in repair and upgrading.

INTERNATIONAL EXAMPLES OF PRICING ARRANGEMENTS FOR INFRASTRUCTURE

Governments around the world have taken a variety of approaches to financing and pricing infrastructure. These include privatization, joint public and private ventures and the establishment of various corporations. Some examples are:

- The California Private Transportation Corporation is seeking financing to build a $100 million toll road demonstration project. The Corporation will transfer the facility to the State prior to completion and then lease it back over a 35-year period.

- In Japan, about 60 per cent of the cost of waste-water treatment and disposal is recouped from user charges. In France, user charges are the predominant and in some cases the only source of revenue for water and sewer facilities.

- A tunnel under Sydney Harbour in Australia is being constructed by a joint Australian-Japanese consortium. The Australian state of New South Wales is providing partial short-term financing for the project by advancing the proceeds of tolls on the existing Harbour bridge to the consortium as an interest-free loan. The bulk of the capital cost is being funded through long-term bonds. The operation of the tunnel and debt service will be funded out of the joint revenues of the tunnel and bridge.

- A joint public-private project for a system of aqueducts has been set up in Veneto, Italy to solve the local water supply problem. The regional government has committed itself to funding 25 per cent of the investment cost during the construction period.

Sources: Organization for Economic Cooperation and Development, *Urban Infrastructure: Finance and Management*, 1991, and information obtained by Price Waterhouse for the Ontario Ministry of Transportation.

Economic spinoffs for industrial development are also possible. Where feasible, the corporations will have a mandate to develop export capability of their own or in sectors of the economy related to infrastructure. Ontario already has substantial expertise and a substantial presence in many of these sectors, which are expected to present good growth opportunities in the 1990s as international investment in infrastructure increases.

The Crown corporations will be linked closely to the **jobsOntario***Capital* initiative. The corporations will play an important role in implementing strategic investments funded through **jobsOntario***Capital*.

Improving Accountability

As infrastructure needs grow more complex, as new financing and pricing arrangements are put in place, and as more capital partners and provincial agencies become involved in the provision of infrastructure, the processes for establishing capital priorities and ensuring accountability will become increasingly important.

The Government's commitment to improved accountability will initially take the form of an expanded treatment of capital in the Provincial Budget and a separate statement of the Government's capital investment plans every year.

The purpose of a detailed reporting of capital in the Budget and a separate capital statement is to identify clearly the Province's contribution to the capital stock of the economy and to enable both the Government and its partners to plan and manage capital more efficiently. It is based on the idea that government revenues and expenditures should be distinguished according to their operating (current) and capital (asset) characteristics.[12]

A more detailed reporting and explanation of the Government's capital investment will have several advantages. It will help to explain clearly the Crown corporations' investment plans and integrate them with plans for other Provincial investments. In the same vein, it will explain the multi-year fiscal implications of previous capital investment decisions, including debt servicing.

It will also allow capital projects to be assessed more effectively against other capital projects. Without a separate capital framework, capital projects are assessed in much the same way as operating expenditures, a practice that encourages a short-term focus and under-investment in capital. Corporations and some public agencies treat capital investment separately because of its long-lasting character and its contribution to long-term growth.

Furthermore, a properly timed statement of the Government's capital investment plans will yield important efficiency gains. An annual capital statement prior to the Budget will synchronize better with the construction season in Ontario.

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12 Postner, Harry H., "Capital Budgets, Renewals Accounting, and Public Accountability", Paper prepared for Government and Competitiveness Project, Queen's University School of Public Policy, June, 1992.

Looking Ahead

The Government of Ontario is taking action to deal with the restructuring of the economy, to reduce its negative impacts and to ensure that potential gains are realized. The Government has developed a broad economic renewal program to lay the foundation for a stronger, more productive economy that will provide Ontario's citizens with well-paying, safe and secure employment.

Public capital investment is a key part of that program. The Government's new policy directions for public capital investment will yield a variety of benefits.

They will focus strategic investments on economic renewal. The new Crown corporations will have a mandate to implement strategic investments. **jobsOntario***Capital* will also play a key role in ensuring that strategic investments take place.

The new directions will lead to increased investment in infrastructure, particularly where the Crown corporations are able to tap new revenue sources and find new financing arrangements involving the private sector.

They will also encourage innovation in building and managing infrastructure. These innovations, including new pricing policies, will result in more efficient construction and use of infrastructure.

The new directions will open up new ways for the Province to work with its capital funding partners, both in setting priorities and in financing infrastructure.

The shift to long-term financing for capital investments will help ensure a better match between the flow of costs and benefits associated with infrastructure.

Economic change will be pervasive in the 1990s. Everyone involved in the provision of public capital investment will need to search for new, more effective ways of planning, financing and managing infrastructure.

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